



Substitute Form PTO-14 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 22578-006US1	Application No. 10/578,732
	Applicant Jae-Kyu Jung et al.		
	Filing Date May 10, 2006	Group Art Unit 1625	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,244,958	01/13/81	Jirkovsky et al.			
	AB	2004/142377	07/22/04	Unett et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AC	WO80/00025	01/10/80	WIPO				
	AD	WO04/032928	04/22/04	WIPO				
	AE	WO04/033431	04/22/04	WIPO				
	AF	WO05/011677	02/10/05	WIPO				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AG	Berge, Stephen M., et al., "Pharmaceutical salts", <i>Journal of Pharmaceutical Sciences</i> , 66(1), pp. 1-19, (1977).
	AH	Caine, Drury S. et al., "Reactions of a 3(2H)-Furanone Lithium Enolate with 4-Halocrotonates", <i>Synlett</i> , pp. 1391-1394, (1999).
	AI	Carballo-Jane et al., "Comparison of rat and dog models of vasodilation and lipolysis for the calculation of a therapeutic index for GPR109A agonists," <i>Journal of Pharmacological and Toxicological Methods</i> , Article in Press, doi:10.1016/j.vascn.2007.05.007 (2007).
	AJ	Carballo-Jane et al., "Comparison of rat and dog models of vasodilation and lipolysis for the calculation of a therapeutic index for GPR109A agonists," <i>Journal of Pharmacological and Toxicological Methods</i> , 56(3), pp. 308-316, (2007).
	AK	Chang, A. Y., et al., "Ciglitazone, a New Hypoglycemic Agent. I. Studies in ob/ob and db/db Mice, Diabetic Chinese Hamsters, and Normal and Streptozotocin-Diabetic Rats", <i>Diabetes</i> , 32(9), pp. 830-838, (1983).
	AL	Coleman, Douglas L., "Diabetes-Obesity Syndromes in Mice", <i>Diabetes</i> 31(Suppl 1 Pt 2), pp. 1-6, (1982).
	AM	Coleman, D. L. et al., "Fat (fat) and Tubby (tub): Two Autosomal Recessive Mutations Causing Obesity Syndromes in the Mouse", <i>The Journal of Heredity</i> , 81(6), pp. 424-427, (1990).
	AN	Collier, T. L. et al., "Radiosynthesis and <i>in-vivo</i> Evaluation of the Pseudopeptide $\delta$ -Opioid Antagonist [ $^{125}$ I]-ITIPP( $\Psi$ )," <i>J. Labelled Cpd. Radiopharm</i> , 42(Suppl 1):S264-266, (1999).
	AO	Cornhill, J. Fredrick, et al., "Topographic Study of Sudanophilic Lesions in Cholesterol-Fed Minipigs by Image Analysis", <i>Arteriosclerosis</i> , 5(5), pp. 415-426, (1985).
	AP	Delporte, Marie-Laure, et al. "Pre- and Post-translational negative effect of $\beta$ -adrenoceptor agonists on adiponectin secretion: <i>in vitro</i> and <i>in vivo</i> studies", <i>Biochemical Journal</i> , 367(3), pp. 677-685, (2002).

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 22578-006US1	Application No. 10/578,732
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Examiner Initial	Desig. ID	Document
	AQ	Eriksson, Ulf et al., "Increased Incidence of Congenital Malformations in the Offspring of Diabetic Rats and Their Prevention by Maternal Insulin Therapy", <i>Diabetes</i> , 31(1), pp. 1-6, (1982).
	AR	Friedman, Jeffrey M. et al., "Tackling a Weighty Problem" <i>Cell</i> , 69(2), pp. 217-220, (1992).
	AS	Gennaro, A. R., et al., eds, Remington, The Science and Practice of Pharmacy, 20 <sup>th</sup> Edition, Lippincott Williams & Wilkins, (2000).
	AT	Gerrity, Ross G. et al., "Diabetes-Induced Accelerated Atherosclerosis in Swine", <i>Diabetes</i> , 50(7), pp. 1654-1665, (2001).
	AU	Gharbaoui et al., "Agonist lead identification for the high affinity niacin receptor GPR109a," <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , 17:4914-4919 (2007).
	AV	Harmon, J. G. et al., eds., Goodman and Gilman's Pharmacological Basis of Therapeutics, Chapter 36, pp. 971-1002, (2001).
	AW	Guyton, John R., "Effect of Niacin on Atherosclerotic Cardiovascular Disease", <i>American Journal of Cardiology</i> , Vol. 82, pp. 18U-23U, (1998).
	AX	Higuchi, T. and V. Stella, "Pro-drugs as Novel Delivery Systems", Vol. 14 of the A.C.S. Symposium Series.
	AY	Holland, Gerald F. et al., "Heterocyclic Tetrazoles, a New Class of Lipolysis Inhibitors", <i>Journal of Medicinal Chemistry</i> 10(2), pp. 149-54, (1967).
	AZ	Horikoshi, Hiroyoshi, et al. "Troglitazone (CS-045), a New Antidiabetic Drug", <i>Annual Report of Sankyo Research Laboratories</i> , Vol. 46, pp. 1-57, (1994).
	AAA	Hudlicky, M., Oxidation in Organic Chemistry, ACS Monograph 186 (1990).
	ABB	J. Jaques, A. Collet and S. Wilen in "Enantiomers, Racemates and Resolutions", John Wiley and Sons, New York (1981).
	ACC	Jirkovsky, Ivo et al., "Hypolipidemic 4,5-Dihydro-4-oxo-5,5-disubstituted-2-Furancarboxylic Acids", <i>J. Med Chem.</i> , Vol. 25, pp. 1154-1156, (1982).
	ADD	Jung et al., "Analogues of acifran: agonists of the high and low affinity niacin receptors, GPR109a and GPR109b," <i>Journal of Medicinal Chemistry</i> , 50:1445-1448 (2007).
	AEE	Kallai-Sanfacon, M. A. et al., "Effect of AY-25,712 and Other Lipid-Lowering Agents on Liver Catalase and Liver Carnitine Acetyltransferase in Rats", <i>Proceedings of the Society for Experimental Biology and Medicine</i> , 173(3), pp. 367-71, (1983).
	AFF	Koranyi, Laszlo et al., "Glucose Transporter Levels in Spontaneously Obese (db/db) Insulin-Resistant Mice", <i>Journal of Clinical Investigation</i> , 85(3), pp. 962-7, (1990).
	AGG	Le Bas, M.-D. et al., "Radioiodinated Analogs of EP00652218 for the Exploration of the Tachykinin NK1 Receptor by Spect", <i>J. Labelled Cpd. Radiopharm</i> , 44(Suppl 1):S280-282, (2001).
	AHH	Larock, R.C., <i>Comprehensive Organic Transformations, A Guide to Functional Group Preparations</i> , 2 <sup>nd</sup> Edition, VCH Publishers, Inc. (1999).
	AII	Lorenzen, Anna et al. "G protein-coupled receptor for nicotinic acid in mouse macrophages", <i>Biochemical Pharmacology</i> , 64(4), pp. 645-648, (2002).
	AJJ	Lorenzen, Anna et al., "Characterization of a G Protein-Coupled Receptor for Nicotinic Acid", <i>Molecular Pharmacology</i> , 59(2), 349-357, (2001).
	AKK	Maciejewski-Lenoir et al., "Langerhans cells release prostaglandin D <sub>2</sub> in response to nicotinic acid," <i>Journal of Investigative Dermatology</i> , 126:2637-2646 (2006).

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**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	ALL	Mahboubi, Keyvan et al., "Triglyceride modulation by acifran analogs: activity towards the niacin high and low affinity G protein-coupled receptors HM74A and HM74", <i>Biochem. Biophys. Res. Comm.</i> , Vol. 340, pp. 482-490, (2006).
	AMM	Matsuda, Morihiro et al., "Role of Adiponectin in Preventing Vascular Stenosis. The Missing Link of Adipo-Vascular axis" <i>Journal of Biological Chemistry</i> , 277(40), pp. 37487-37491, (2002).
	ANN	Meister, Herbert et al., "Reaction products from 3,5-octadiyne-2,7-diol", <i>Justus Liebigs Annalen der Chemie</i> , No. 11, pp. 1908-1914, (1974).
	AOO	Remington's Pharmaceutical Sciences, 17th ed., Mack Publishing Company, Easton, Pa., p. 1418, (1985).
	APP	Richman et al., "Nicotinic acid receptor agonists differentially activate downstream effectors," <i>The Journal of Biological Chemistry</i> , 282:18028-18036, (2007).
	AQQ	Roche, Edward B., ed., "Bioreversible Carriers in Drug Design", <i>American Pharmaceutical Association and Pergamon Press</i> , (1987).
	ARR	Royo, T. et al., "Effect of gemfibrozil on peripheral atherosclerosis and platelet activation in a pig model of hyperlipidemia", <i>European Journal of Clinical Investigation</i> , 30(10), pp. 843-852, (2000).
	ASS	Semple et al., "Recent progress in the discovery of niacin receptor agonists," <i>Current Opinion in Drug Discovery &amp; Development</i> , 10:452-459, (2007).
	ATT	Semple et al., "1-Alkyl-benzotriazole-5-carboxylic acids are highly selective agonists of the human orphan G-protein-coupled receptor GPR109b," <i>Journal of Medicinal Chemistry</i> 49:1227-1230, (2006).
	AUU	Semple, "Niacin receptor agonists," <u>Presentation</u> , American Chemical Society 233 <sup>rd</sup> National Meeting & Exposition, March 25, 2007 – March 29, 2007, Chicago, Illinois
	AVV	Semple, "Discovery of selective agonists for GPR109a and GPR109b, the high and low affinity receptors for niacin," <u>Presentation</u> , <i>GPCRs in Medicinal Chemistry</i> , jointly organized by the Society of Chemical Industry, Royal Society of Chemistry and the Societa Chimica Italiana, September 18, 2006 – September 20, 2006, Verona, Italy
	AWW	Shafir, "Diabetes in Animals," <i>Diabetes Mellitus</i> , H Rifkin and D Porte, Jr, Eds [Elsevier Science Publishing Co, New York, ed. 4, pp. 299-340, (1990)]
	AXX	Skinner et al, "Fluorinated pyrazole acids are agonists of the high affinity niacin receptor GPR109a," <u>Poster</u> , 30 <sup>th</sup> National Medicinal Chemistry Symposium, June 25, 2006 – June 29, 2006, Seattle, WA
	AYY	Smith and March, <i>Advanced Organic Chemistry</i> , 5 <sup>th</sup> Edition, Wiley-Interscience (2001).
	AZZ	Soga, Takatoshi et al., "Molecular identification of nicotinic acid receptor", <i>Biochemical and Biophysical Research Communications</i> , Vol. 303, pp. 364-369, (2003).
	AAAA	Taggart et al., "(D)-β-Hydroxybutyrate inhibits adipocyte lipolysis via the nicotinic acid receptor PUMA-G," <i>The Journal of Biological Chemistry</i> , 280:26649-26652, (2005).
	ABBB	Truett, Gary E. et al., "Rat obesity gene fatty ( <i>fa</i> ) maps to chromosome 5: Evidence for homology with the mouse gene diabetes ( <i>db</i> )", <i>Proc. Natl. Acad. Sci. USA</i> , 88(17), pp. 7806-7809, (1991).
	ACCC	Tunaru, Sorin, et al., "PUMA-G and HM74 are receptors for nicotinic acid and mediate its anti-lipolytic effect", <i>Nature Medicine</i> , 9(3), pp. 352-355, (2003).
	ADDD	Van Herk, T. et al., "Pyrazole Derivatives as Partial Agonists for the Nicotinic Acid Receptor", <i>Journal of Medicinal Chemistry</i> , 46(18), pp. 3945-3951, (2003).
	AEEE	Wise, Alan et al., "Molecular Identification of High and Low Affinity Receptors for Nicotinic Acid", <i>Journal of Biological Chemistry</i> , 278(11), pp. 9869-9874, (2003).

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	AFFF	Wuts, P. G. M. et al.; <i>Protective Groups in Organic Synthesis</i> , 3 <sup>rd</sup> Edition, John Wiley and Sons, (1999)
	AGGG	Zhu <i>et al.</i> , Synthesis and Mode of Action of <sup>125</sup> I- and <sup>3</sup> H-Labeled Thieno[2,3- <i>c</i> ]pyridine Antagonists of Cell Adhesion Molecule Expression. <i>Journal of Organic Chemistry</i> , 67(3), 943-948, (2002).

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